IVANCHENKO, Semen Trofimovich, kand.ekonom.nauk; KASHPUR, A.T., retsenzent; RIKHBERG, D.B., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[The over-all mechanization and automation of calculating work in machinery manufacturing enterprises] Kompleksnaia mekhanizatsiia i avtomatizatsiia vychislitel'nykh rabot na mashinostroitel'nykh predpriiatiiakh. Moskva, Mashgiz, 1961. 166 p. (MIRA 14:12)
(Machinery industry--Accounting) (Machine accounting)

FEDORENKO, Ye.G., prof., otv. red.; ZAYKO, N.N., prof., zam. otv. red.; OKHRIMENKO, Yu.M., red.; KOLOMIYCHENKO, M.E., zasl. deyatel' nauki Ukr.SSR prof., red.; SHAKHBAZYAN, G.Kh., prof., red.; IVANCHENKO, T.L., prof., red.; GURVICH, S.S., dots., red.; KHAVCHUK, M.I., dots., red.

[Philosophical problems in medicine and biology] Filosofskie voprosy meditsiny i biologii. Kiev, Zdorov'ia, 1965. 255 p. (MIRA 18:10)

1. Kiev. Medychnyi instytut. 2. Chlen-korrespondent AMN SSSR (for Shakhbazyan).

IVANCHENKO, T. V.

Ivanchenko, T. V. -- "Vegetative Propagation of the Mulberry Tree in the Ukrainian SSR." Min Higher Education USSR, Khar'kov Order of Labor Red Banner Agricultural Inst imeni V. V. Dokuchayev, Khar'kov, 1955 (Dissertation for the Degree of Candidate in Agricultural Sciences)

SO: Knizhnaya Letopis', No. 24, Moscow, Jun 55, pp 91-104

IVANCHENKO, V. Engr.

"Three Observations," Prom.-Ekon. Gazeta, Moscow, 19 Feb 56

Translation Summary No. 1084, 2 Oct 56

PHASE I BOOK EXPLOITATION SOV/4693

Nekhozhennymi tropami Vselennoy (Untrodden Paths of the Universe) Moscow, Izd-vo "Pravda," 1959. 63 p. (Series: Biblioteka "Komsomol'skoy pravdy," no. 11) 131,000 copies printed.

Ed.: V. Kukushkin; Tech. Ed.: L. Novikova.

PURPOSE: This popular science booklet is intended for the general reader.

COVERAGE: The booklet contains 14 articles dealing with early and recent efforts and accomplishments in space exploration. Though popular in style, the articles are written by leading Soviet scientists in the field. The contributions of K. E. Tsiolkovskiy to space science are briefly presented. Satellites, space rockets, future space craft, and certain pertinent engineering problems are discussed. No personalities are mentioned. No references are given.

AVAILABLE: Library of Congress

41818
S/835/61/000/024/002/002
E032/E114

3.1720

AUTHORS: Barabashov, N.P., Ivanchenko, V.M., and Chirkova, R.M.

TITLE: Radio observations of the partial solar eclipse of February 15, 1961, at the wavelength $\lambda \cong 1.5$ m

SOURCE: Khar'kov. Universytet. Astronomichna observatoriya. Tsirkulyar. no.24, 1961, 36-38

TEXT: On February 15, 1961, the Khar'kovskaya astronomicheskaya observatoriya (Khar'kov Astronomical Observatory) carried out radio observations of the solar eclipse in the 1.5 m range. The aim was to obtain the distribution of radio intensity over the solar disc and then use it to obtain information about the nature of solar radio emission. The measurements were carried out by a compensation method using a 6 m diameter parabolic mirror. The high frequency amplifier included the low-noise 6Н14П (6N14P) tube in a cascade circuit and the five-stage intermediate frequency amplifier incorporated 6Ж4 (6Zh4) tubes. The intermediate frequency was 31 Mc/s and the bandwidth was $\Delta f_{0.5} = 4$ Mc/s.

In the figure, curve II shows the intensity of solar radio emission as a function of time; curve I shows the ratio of the uneclipsed

Card 1/2

9.2150

31835
S/194/61/000/010/055/082
D256/D301

AUTHORS: Yemel'yanov, V.I., Ivanchenko, V.A. and Ozol, A.Ya.

TITLE: High-power high-voltage rectifier tube (with a non-sectioned anode-bloc)

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 10, 1961, 31, abstract 10 G212 (Izv. N.-in. in-ta postoyan. toka, 1960, sb. 6, 112-120)

TEXT: Difficulties are encountered when attempts are made to increase at high currents the working voltage of a high-tension rectifier tube owing to ionic currents distorting the voltage distribution. The losses in the tube complicate the cooling system and increase the costs. A high voltage tube BPH-900/100 (VRN-900/100)-type was constructed using a non-section anode-bloc with a cylindrical anode inlet, the cathode with a cooling screen being placed non-symmetrically in the body of the tube. The tube is of a comparatively small size and it consists of a small number of com-

Card 1/2

High-power high-voltage...

ponents thus simplifying production. The tube is rated at 900 A, 100-110 kV. [Abstracter's note: Complete translation]

X

Card 2/2

21379
S/194/61/000/009/028/053
D256/D302

24.2120 (1049,1141)

AUTHOR: Ivanchenko, V.A.

TITLE: Calculation and measurement of the plasma deionization potential

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 9, 1961, 7, abstract 9 G36 (Izv. N.-i. in-ta postoyan. toka, 1960, v. 6, 121-130)

TEXT: In the process of deionization by contact with two electrodes of potentials 0 and U and the surface areas respectively S_1 and S_2 the plasma will reach a potential U_p greater than U if:

$$S_1/S_2 > j_p/j_e - \exp\left(-\frac{e}{kT}U\right)$$

or a potential smaller than U if:

$$S_1/S_2 < j_p/j_e - \exp\left(-\frac{e}{xT}U\right),$$

Card 1/2

Calculation and measurement...

where T_e - electron temperature; j_e - the density of the chaotic electron current; j_p - the density of the chaotic ion current. Since $j_p/j_e \approx 1/306 \div 1/400$, $T_e < 10000^{\circ}K$, so that for $U > 10V$ the plasma potential will be greater than the potential U of the positive electrode, whose surface area is 1/400 of that of the second electrode. Expressions were derived for calculating U_p, and in the case of $U_p > U$ they show a good agreement with experiment. The following criterion is given for the applicability of the probe method to investigations of plasma deionization: the ratio of the probe-electrode surface area to that of the fixed potential electrode should not exceed 10^{-4} in order to keep the distortions of the potential U_p below 0.05 V. [Abstracter's note: Complete translation]

Card 2/2

S/057/60/030/008/013/019
B019/B060

AUTHORS: Ivanchenko, V. A., Sena, L. A.

TITLE: An Investigation of the Potential Distribution in a Space Charge Layer of Positive Ions

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 8, pp. 964-970

TEXT: A report is made here of a method of measuring the potential distribution of a space charge of positive ions. This method is based on an analysis of the energy of ions passing through the layer. In the introduction the authors refer, among other things, to papers by V. I. Drozdov (Ref. 2) and Yu. M. Kagan, V. I. Perel' (Ref. 3). The measurements were made on a layer placed between a negative electrode and a plasma discharge in Hg vapor. After a short discussion of the motion mechanism of ions in the layer, formula (1) is supplied for the ion flux. Errors and restrictions of this method are discussed, and the experimental arrangement is described (Figs. 1, 3). Fig. 5 is a graph illustrating potential distributions for different electrode voltages. Fig. 8 shows a comparison between

Card 1/2

An Investigation of the Potential Distribution in a Space Charge Layer of Positive Ions

S/057/60/030/008/013/019
B019/B060

the measured potential distribution and the one calculated according to Langmuir, with the latter proving to be somewhat steeper. The error arising in the optical measurement of the layer thickness is discussed, and the existence of a systematic error is referred to. There are 8 figures and 5 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut postoyannogo toka Leningrad
(Scientific Research Institute of Direct Current, Leningrad)

SUBMITTED: February 24, 1960

✓B

Card 2/2

IVANCHENKO, V.A.; MEN'SHIKOV, V.Ya.

Study of the relationship between fault conditions in mercury rectifiers and changes in mercury vapor density. Izv. NIIPT no.8:11-19 '61. (MIRA 15:7)

(Mercury-arc rectifiers)

3913[illegible]
S/058/62/000/006/126/135
A062/A101

AUTHOR: Ivanchenko, V. A.

TITLE: The application of the Langmuir probe method for investigating a self-deionizing plasma

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 53, abstract 6Zh349 ("Izv. N.-i in-ta postoyan. toka", 1961, sb. 7, 5 - 13)

TEXT: When using the Langmuir probe method for investigating a self-deionizing plasma it is necessary to consider that the potential of such a plasma is tied in single-valued way with the potential of the most positive electrode among those inserted therein. Therefore the obtaining of the usual probe characteristics is in this case impossible for a single probe. It is shown theoretically that, if inserting into the plasma a resistive electrode whose surface is considerably greater than the surface of the probe, the Langmuir method can still be employed. A dependence is found between the error in determining the fundamental plasma parameters and the ratio of the surfaces of the resistive electrode and the probe. In conclusion, the installation diagram is given with the results

Card 1/2

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A062/A101

The application of the...

of an experimental investigation of a periodically appearing and self-deionizing plasma. The surface of the resistive electrode was greater than the surface of the probe by not less than 10^4 times. The error obtained with a fivefold measurement is in good agreement with the calculated value.

K. Kartashev

[Abstracter's note: Complete translation]

Card 2/2

IVANCHENKO, V.; ZHUKOV, M.

Characteristics of road construction in Turkmen sand dunes.
Avt. dor. no.10:20 O '64. (MIRA 17:12)

1. Nachal'nik proizvodstvennogo otdela dorozhno-stroitel'nogo upravleniya No.1 Ministerstva avtomobil'nogo transporta i shosseynykh dorog Turkmenskoy SSR (for Ivanchenko). 2. Proizvoditel' rabot dorozhno-stroitel'nogo upravleniya No.1 Ministerstva avtomobil'nogo transporta i shosseynykh dorog Turkmenskoy SSR (for Zhukov).

RAKHTEYENKO, I.N.; KOCHANOVSKIY, S.B.; IVANCHENKO, V.M.

Absorption of tagged phosphorus by individual parts of aerial organs in woody plants. Sbor. nauch. rab. Bel. otd. VBO no.3: 116-121 '61. (MIRA 14:12)
(Trees--Physiology) (Phosphorus--Isotopes)

KROT, L.A.; KOCHANOVSKIY, S.B.; IVANCHENKO, V.M.; ZATEYEVA, R.V.

Soil water balance for urban tree planting. Biul. Inst. biol. AN BSSR no.6:72-76 '61. (MIRA 15:3)
(TREE PLANTING)
(SOIL MOISTURE)

IVANCHENKO, V.M.; KOCHANOVSKIY, S.B.

Effect of light on the distribution of phosphorus in woody plants. Biul. Inst. biol. AN BSSR no.6:77-81 '61. (MIRA 15:3)
(PLANTS, EFFECT OF LIGHT ON)
(PHOSPHORUS)

IVANCHENKO, V.M.

Economic efficiency of defectless manufacture of industrial articles and of their reception at the first delivery. Mashinostroitel' no.9:6-8 S '64. (MIRA 17:10)

1. Nachal'nik planovo-ekonomicheskogo upravleniya Privolzhskogo soveta narodnogo khozyaystva.

L 3560-66 EWT(1)/EWA(h)/ETC(m) WW
ACCESSION NR: AP5024412 UR/0286/65/000/015/0093/0093

AUTHOR: Ivanchenko, V. M.

TITLE: Radio level gauge. Class 42, No. 173446

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 93

TOPIC TAGS: liquid level indicator, radio equipment, gage

ABSTRACT: This Author Certificate presents a radio level gauge containing a float-rheostat detector, a radio or wire communication line, an indicator device, and an automatic recorder connected in parallel with the indicator. To increase the accuracy of measurement and the freedom from interference in the transmission of measurement results, the gauge is provided with a multivibrator with repeated change of generated pulse frequency, which is connected in the communication line (see Fig. 1 on the Enclosure). The rheostat detector is connected in the collector circuit of the transistorized multivibrator. To automate the measurement and transmission of the measured parameters and to insure the possibility of cyclic operation of many radio level gauges, e.g., several hundred on one communication line with one set of receiving devices at the dispatcher point, a programmed

Card 1/3

L 3560-66
ACCESSION NR: AP5024412

device is used. The device is in the form of a mechanical or electronic clock mechanism switching on and off according to a set program, a multivibrator supply, and a high frequency transmitter. To eliminate the effect of air temperature variations on the stability of the generated pulses, the multivibrator is made so as to allow it to be placed in a medium with large thermal inertia, e.g., in the ground. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 26Nov64 ENCL: 01 SUB CODE: IE, EC

NO REF SOV: 000 OTHER: 000

Card 2/3

L 3560-66
ACCESSION NR: AP5024412

ENCLOSURE: 01

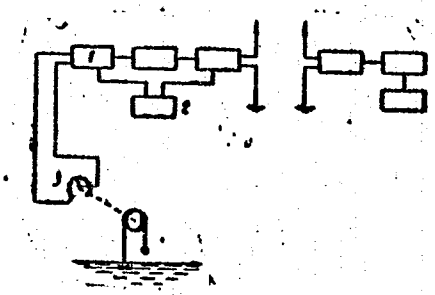


Fig. 1. 1- multivibrator; 2- programmed device; 3- rheostat detector

Card 3/3

GONCHARIK, M.N. [Hancharyk, M.M.]; IVANCHENKO, V.M. [Ivanchanka, V.M.]

Formation of the photosynthetic apparatus and the pure productivity of photosynthesis of potato plants under excess chloride supply. Vestsi AN BSSR, Ser. biial nav. no.1: 100-105 '65. (MIRA 18:5)

GONCHARIK, M.N. [Hancharyk, M.M.]; IVANCHENKO, V.N. [Ivanchenka, V.M.]

Effect of excessive chlorine content in soil on the relative characteristics of the apparatus of photosynthesis in potato plants. Vestsi AN BSSR. Ser. biial. nav. no.2: 60-65 '65. (MIRA 18:12)

Ivanchenko, V. P.

"The Sympathetic Nerves of the Thoracic Portion of the Digestive Tract." Tomsk State Medical Inst imeni V. M. Molotov, Tomsk, 1955 (Dissertation for the degree of Candidate in Medical Science)

SO: Knizhnaya letopis' No. 27, 2 July 1955

USSR / Human and Animal Morphology (Normal and Pathological). The Peripheral Nervous System. S-2

Abs Jour: Ref Zhur-Biol., No 10, 1958, 45527

Author : Ivanchenko, V.P.
Inst : Tomsk Medical Institute
Title : Concerning the Morphology of the Splanchnic Nerves of the Thoracic Sympathetic Trunk.

Orig Pub: 5-y Pavlosk. sb. Tomskiy med. in-t, Tomsk, Un-t, 1956, 17-19.

Abstract: By a method of refined preparation under a binocular loupe on cadavers of children and adults, the level of departure of the roots of the greater splanchnic nerve (GSN) was studied. The source and quantity of the GSN roots are diverse and changeable. The angle of entry of the roots into the main trunk depends upon the skeletal level of

Card 1/2

VARENYSHEV, Boris Vasil'yevich, podpolkovnik; IVANCHENKO, Vladimir Yakovlevich, polkovnik; GORCHAKOV, A.D., podpolkovnik, red.; KONOVALOVA, Ye.K., tekhn.red.

[Reconnaissance of enemy military engineering] Inzhenernaia razvedka. Moskva, Voen.izd-vo M-va obor.SSSR, 1959. 126 p. (MIRA 12:12)

(Military reconnaissance)

IVANCHENKO, I. A.; IVANCHENKO, G. Z.

Grafting, Potatoes

Grafting as a means of improving intravarietal potato hybrids., Agrobiologiia, no. 6, 1951. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy promyshlennosti. Moskovskaya sel'skokhozyay-

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED.
stvennaya opytnaya stantsiya. Tatarinovo, Moskovskoy oblasti

IVANCHENKO, Ye. A.

"Grafting as a Method of Increasing the Crossing Capacity of Potato Varities and Species." Cand Biol Sci, Moscow State U, Moscow, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

IVANCHENKO,G.Z.; IVANCHENKO,Ye.A.

Breeding potatoes for industrial use at the Moscow Agricultural Experiment Station. Trudy VNIISP no.4:24-31 '54. (MIRA 8:12)
(Potato breeding)

IVANCHENKO, Ye.A.

Effect of planting time on the formation of potato berries. Agrobiologiia no.3:119-121 My-Je '56. (MLRA 9:9)

1.Moskovskaya sel'skokhozyzystvennaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta spirtovoy promyshlennosti.
(Potatoes) (Fertilization of plants) (Plants, Flowering of)

COUNTRY : USSR
CATEGORY : Cultivated Plants. Potatoes, Vegetables, Cucurbits. M

ABS. JOUR. : RZhBiol., No. 23 1958 No. 104686

AUTHOR : Ivanchenko, Ye. A.
INST. : Moscow Breeding Station of the Institute of Potato Farming
TITLE : Breeding Nurseries on the Bed of Perennial Grasses.

ORIG. PUB. : Kartofel', 1958, No. 2, 67-68

ABSTRACT : During 1953-1957, the influence of a bed of grasses, truck garden plot and a turned bed, on the starch content and yielding ability of 14 hybrid potato specimens and varieties Rannyaya Rosa, Lorkh, and Vol'tman, was studied at Moscow Breeding Station of the Institute of Potato Farming. The highest percentage of starch (18.3) was obtained by planting on the bed. The highest yield (692 grams per vine) - on the truck garden plot. In growing on the bed of previous years, a yield of 603 grams per vine was obtained with the starch content of 17.8%; on the truck garden plot - 698 grams and 16.9% respectively. -- I. N. Zaikins

Card: 1/1

FILIPPOV, D.I.; KHARLAMP'YEVA, N.I.; MAKSAKOVA, V.M.; KHILKOVA, O.G.; IVANCHENKO, Ye.A.; ZHUKOVSKIY, D.I.; BORDUKOVA, M.V.; TAIROVA, V.N., red.

[Growing seed potatoes in the R.S.F.S.R.] Semenovodstvo kartofelia v RSFSR [By] D.I.Filippov i dr. Moskva, Sel'khozizdat, 1963. 166 p. (MIRA 17:6)

IVANCHENKO, Ye.F., inzh.

A plow for plowing-under corn stubbles. Mekh. sil'. hosp. 13 no.8:11-12 Ag '62. (MIRA 15:7)
(Corn (Maize)) (Plows)

IVANCHENKO, Ye.F. [Ivanchenko, E.F.], inzh.; IVANCHENKO, O.Ya., inzh.

Combine loader which automatically follows the ground surface.
Mekh. sil'. hosp. 14 no.6:28 Je '63. (MIRA 17:3)

IVANCHENKO, YE. YA.

Ivanchenko, Ye. Ya. "A classification of mechanisms on the basis of the structural analysis of kinematic chains", Izvestiya Kheproperr. gornogo in-ta im. Artema, Vol. XX, 1948, p. 145-59

SO: U-4631, 16 Sept. 1953, (Letopis 'Zhurnal 'nykh Statey, No. 24, 1949)

Ivanchenko, Ye. Ya. - "The grapho-analytical method of determining the strength of friction in brake shoes of mining elevators," Izvestiya Dnepropetr. gornogo in-ta, Vol. XIX, 1948, p. 161-71

SO: U-3600, 10 July 53,(Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

IVANCHENKO, Ye.Ya.

Theory of electric traction. Nauch. trudy KHGI no.6:237-253
(Mine railroads--Electric driving)

IVANCHENKO, YE. YA.

IVANCHENKO, YE. YA.

Volotkovskiy, S. A. defended his Doctor's dissertation in the Sverdlovsk Mining Institute im Vakhrushev, USSR, on 22 November 1950, for the academic degree of Doctor of Technical Sciences.

Dissertation: "Mine-Haulage Electric Traction".

Official Opponents: Profs. F. N. Shklyarskiy, P. P. Pirotskiy, Ye. Ya. Ivanchenko (Doctors of Technical Sciences); P. M. Trukhin (General Mine Director Third Class).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29344, 16 Apr 54)

IVANCHENKO, Ye.Ya.

Universal acceleration tachometer and its use in mining. Sbor. nauch. trud. KHGI 5:6-13 '58. (MIRA 14:4)
(Mining machinery)
(Automatic control)

IVANCHENKO, Ye.Ya.; VOLKOV, A.A.

Induction, torsion-type dynamometer for the investigation of rock boring and the performance of electric drills. Sbor.nauch.trud. KHGI 5:15-25 '58. (MIRA 14:4)
(Rock drills) (Dynamometer)

SOV/144-58-8-16/18

AUTHORS: Ivanchenko, Ye.Ya., Professor, and Ogorodneychuk, I.F., Candidate of Technical Sciences

TITLE: The Prospects of Using High-frequency Currents for Remote Control in Mine Equipment (Perspektivy primeneniya tokov vysokoy chastoty dlya distantsionnogo upravleniya shakhtnymi zaboynymi mekhanizmami)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 8, pp 128 - 133 (USSR)

ABSTRACT: The uses of resonant relays in two- or three-wire multipoint remote-control systems are considered. Methods of using the power lines are dealt with. Some ways of providing protection (e.g. by causing the insulation resistance of the motor to damp the resonant circuit and cut off the power if a fault to earth occurs) are also presented. The difficulties that arise in ensuring effective control if the apparatus has to be spark-proof have not been entirely eliminated in the systems that are described, though even so high frequencies (1 500 - 5 000 c.p.s) have advantages over low ones. There are 5 figures.

Card1/2

SOV/144-58-8-16/18

The Prospects of Using High-frequency Currents for Remote Control in Mine Equipment

ASSOCIATIONS: Kafedra rudnichnoy avtomtiki i telemekhaniki Khar'kovskogo gornogo instituta (Chair for Automtion and Telemechanisation in Mines of Khar'kov Mining Institute) (Ye. Ya. Ivanchenko)
Nauchno-issledovatel'skaya laboratoriya Khar'kovskogo gornogo instituta (Scientific Research Laboratory of Khar'kov Mining Institute) (I.F. Ogorodnaychuk)

SUBMITTED: June 12, 1958

Card 2/2

IVANCHENKO, Ye.Ya., prof.; KRASAVIN, V.V., inzh.

Designs of chokes of the simplest construction with a minimum cost in materials. Izv. vys. ucheb. zav.; gor. zhur. 5 no.10: 137-141 '62. (MIRA 15:11)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov.
(Electric transformers--Equipment and supplies)

IVANCHENKO, Ye.Ya., prof.; CHIBRIKOV, A.V., inzh.

Calculation of high-frequency initial parameters of triple armored cables. Izv. vys. ucheb. zav.; gor. zhur. 6 no.10: 82-92 '63. (MIRA 17:2)

1. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki.

IVANCHENKO, Ye.Ya., prof.; SVIRIDOV, V.V., inzh.

Calculation of the parameters of high-frequency mine shields. Izv.vys. ched.zav.; gor.zhur. 6 no. 12:190-196 '63. (MIRA 17:5)

1. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov.

IVANCHENKO, Ye.Ya., prof.; KOTLYAROVA, A.V., inzh.

Conditions for the invariance in continuous automatic control systems for mine hoisting equipment. Izv.vys.ucheb.zav.;gor.zhur. 7 no.9:154-158 '64. (MIRA 18:1)

1. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki. Rekomendovana kafedroy avtomatiki i telemekhaniki.

USSR / Forest Science. Biology and Typology of Trees. K-2

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77489

Author : Ivanchenko, Yu. I.
Inst : All-Union Institute of Plant Protection
Title : On the Reason for the Dessication of Oak Plantations of the Lipetsk Resort of the Saval' Forest

Orig Pub : Tr. Vses. in-ta zashchity rast., 1957, vyp. 8, 221-225

Abstract : No abstract given

Card 1/1

S/181/63/005/001/059/064
B104/B186

AUTHORS: Bratashevskiy, Yu. A., Galkin, A. A., and Ivanchenko, Yu. M.

TITLE: Resonant absorption in InSb on the band carriers

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 356-359

TEXT: An experiment with n-type InSb is described which made it possible to observe the absorption band produced by cyclotron resonance and, for the first time, also other lines with electrical excitation of the band carriers. At nitrogen temperature the carrier concentration was $8 \cdot 10^{13}$ cm^{-3}, the mobility was $3 \cdot 10^5$ cm^2/v. Lenticular samples of 0.45 mm diameter and 0.2 mm height were used. They were studied in the electric field of a rectangular resonator of a superheterodyne radiospectroscope (75,000 Mc/sec). At oxygen temperature, intense cyclotron resonance lines were observed in transverse polarization, these being shifted into the region of stronger magnetic fields by plasma effects. Four other lines were observed when the cyclotron resonance lines were compensated by adjusting the longitudinal polarization. The lines disappeared when the samples were placed into the resonator loop, which proved them to be electrically excited. On continuous

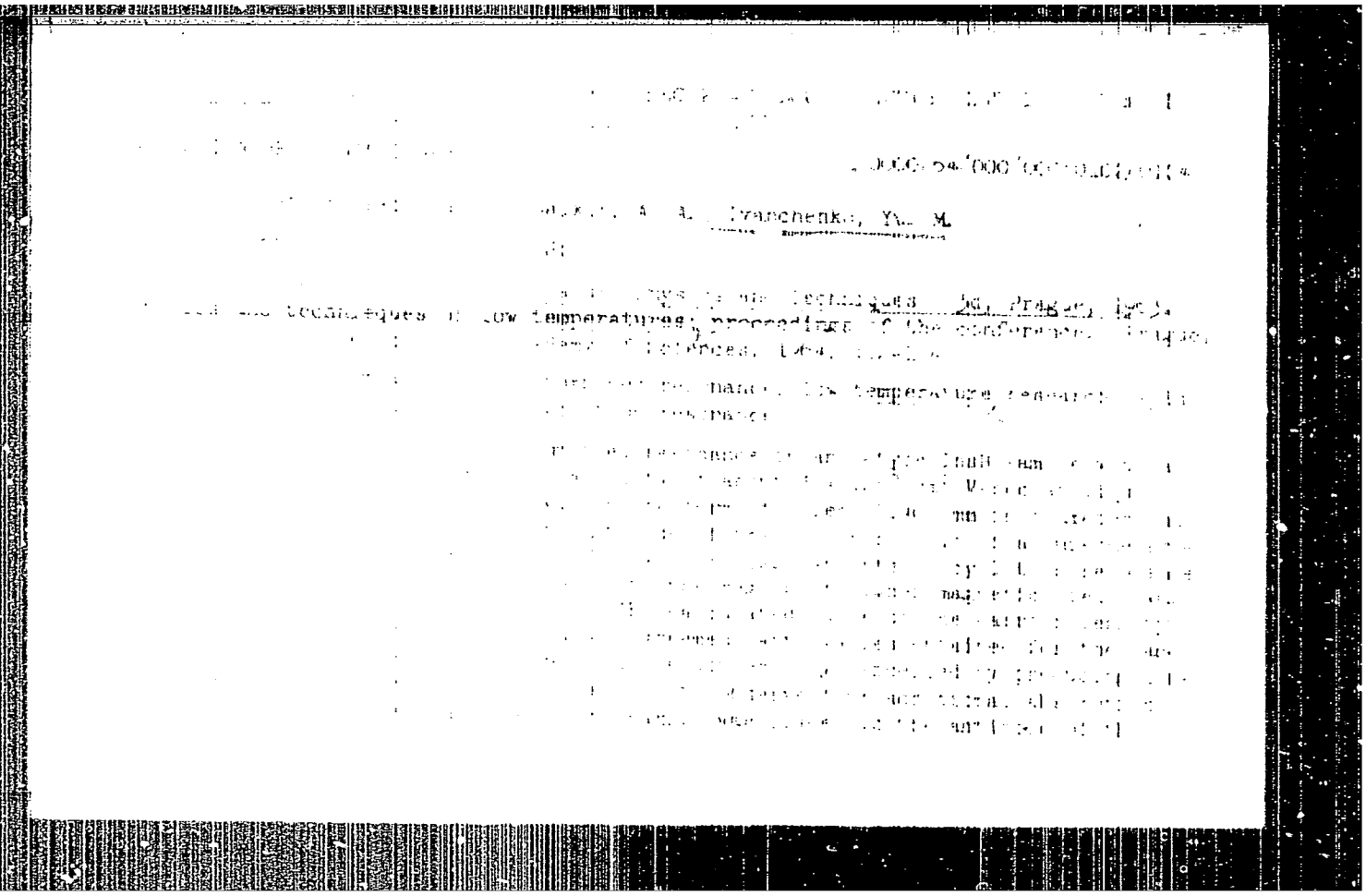
Resonant absorption in InSb on...

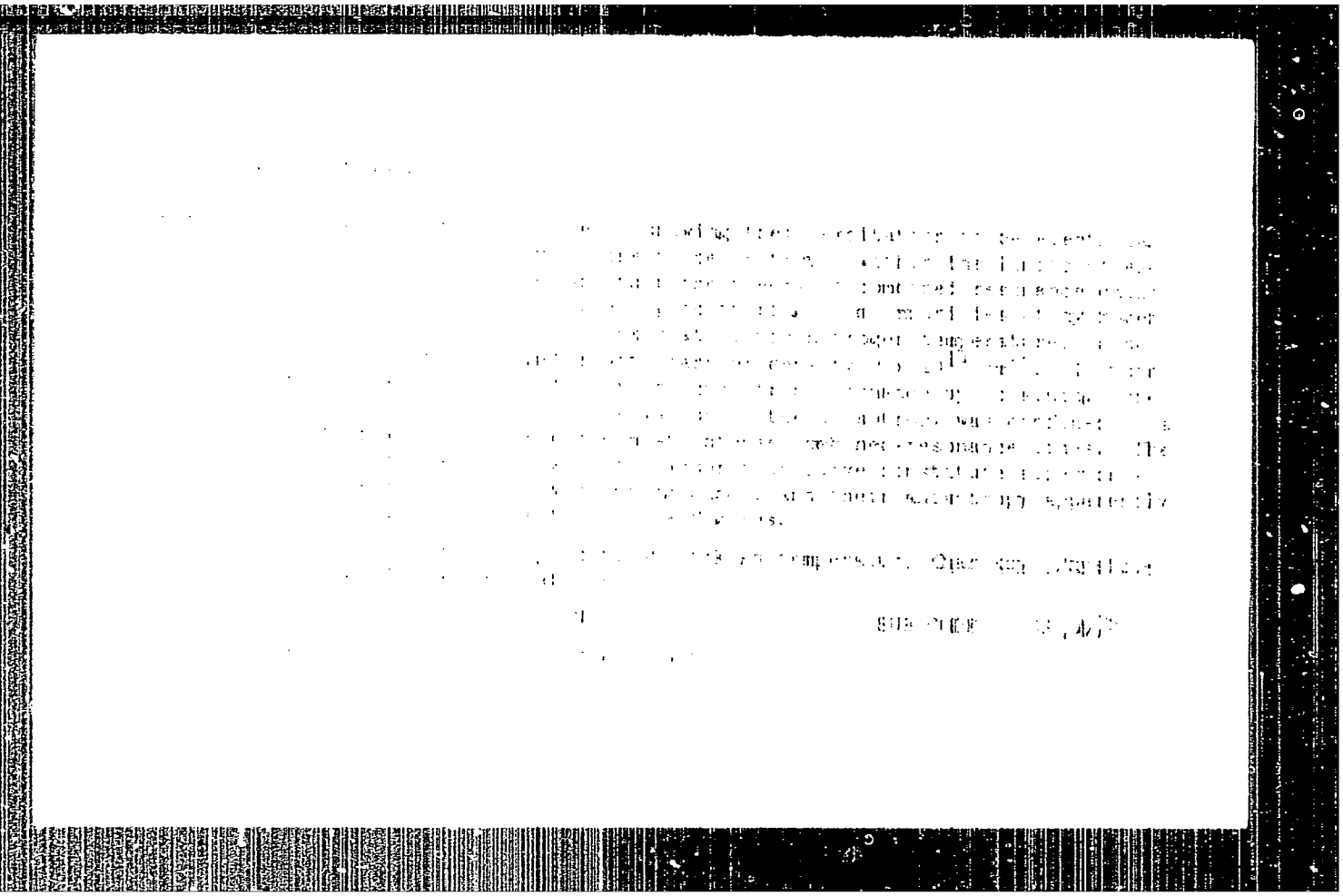
transition from longitudinal to transverse polarization the intensity ratio of these lines to that of cyclotron resonance dropped even at small angles of deflection. Combined resonance is assumed to exist in this case. There is 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN USSR, Khar'kov (Physicotechnical Institute of Low Temperatures AS UkrSSR, Khar'kov)

SUBMITTED: September 24, 1962

Card 2/2





ACC NR: AP6024894 SOURCE CODE: UR/0056/66/051/001/0337/0344

AUTHOR: Ivanchenko, Yu. M.

ORG: Donets Physico-Technical Institute, Academy of Sciences, Ukrainian SSR (Donetskiy fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR)

TITLE: Tunneling between two superconductors

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 337-344

TOPIC TAGS: superconductivity, superconductor, Josephson current, DIELECTRIC LAYER, TUNNEL CURRENT

ABSTRACT: Equations describing the behavior of a system consisting of two superconductors divided by a thin dielectric layer are derived. It is shown that essentially the Josephson current does not depend on the phase difference of the two superconductors because the parameter it depends on is involved in tunneling processes occurring even between normal metals. Some differential relations are deduced for small stresses on the barrier and for slowly varying processes. It is found that during tunneling between thin superconducting films the dependence of the tunneling current on the magnetic field may differ strongly from the corresponding dependence for massive samples. This is owing to the fact that the currents flowing along the films become comparable with the tunneling current in a relatively strong magnetic field. Orig. art. has: 24 formulas. [CS]

SUB CODE: 20/ SUBM DATE: 17Feb66/ ORIG REF: 004/ OTH REF: 011

Card 1/1 blg

GALUSHKO, V.P.; MASALSKIY, V.L.; VARENKO, Ye.N.; IVANCHENKO-LIPSKIY, Yu.N.

Effect of the bath composition on the temperature of the electrochemical boride formation on steel. Metalloved i term. obr. met. no.11:40-41 N '65. (MIRA 18:12)

1. Dnepropetrovskiy gosudarstvennyy universitet.

L 08326-67 EWT(1) IJP(c) AT

ACC NR: AR6033790 SOURCE CODE: UR/0058/66/000/007/E099/E099

AUTHOR: Ivanchenko, Yu. M. 17

TITLE: On the theory of multifrequency tunnelling

SOURCE: Ref. zh. Fizika. Abs. 7E744

REF SOURCE: Donetskiy fiz.-tekhn. in-t AN USSR. Donetsk, 1966, 11 str.

TOPIC TAGS: Hamiltonian, matrix element, tunnel, massive metal

ABSTRACT: A basis is provided for a model scheme with a tunnel Hamiltonian. The limits of its applicability are pointed out. The matrix elements of the effective interaction between two massive metals divided by a thin oxide layer are computed. [Translation of abstract]

SUB CODE: 20/

Card 1/1 nst

L 04230-67 EWT(1) IJP(c)

ACC NR: AR6031896 SOURCE CODE: UR/0058/66/000/006/E130/E130

34
B

AUTHOR: Ivanchenko, Yu. M.; Svidzinskiy, A. V.; Slyusarev, V. A.

TITLE: Electrodynamics of the Josephson effect

SOURCE: Ref. zh. Fizika, Abs. 6E1011

REF SOURCE: Fiz.-tekhn. in-t nizk. temperatur, Donetskiy fiz.-tekhn. in-t AN USSR. Khar'kov-Donetsk, 1966, 14 str.

TOPIC TAGS: electrodynamics, superconductive tunnelling, tunnel effect, Josephson effect

ABSTRACT: The electrodynamics of superconductive tunnelling at small voltages and during slowly varying processes is investigated. A theory on the voltampere characteristics of such tunnelling is evolved. The experimental data are in good agreement with the theoretical results. [Translation of abstract]

SUB CODE: 11, 09/

Card 1/1 pla

L 08173-67 EWT(1) IJP(c)

ACC NR: AP6024880 SOURCE CODE: UR/0056/66/051/001/0194/0200

AUTHOR: Ivanchenko, Yu. M.; Svidzinskiy, A. V.; Slyusarev, V. A. 51 B

ORG: Physicotechnical Institute of Low Temperatures, Academy of Sciences, Ukrainian SSR (Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR)

TITLE: Electrodynamics of the Josephson effect

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 194-200

TOPIC TAGS: superconductivity, tunnel effect, phase transition

ABSTRACT: This is a companion to a paper in the same source (p. 177, Acc. Nr. AP6024878) where a physical interpretation was presented of the effect, based on the analysis of the entire electric circuit in which the tunnel junction is connected. It is shown that the equivalent circuit considered in that paper is idealized and consists of a source of voltage with internal resistance, whereas the actual situation is more complicated. In the present article the authors calculate the magnitude and position of the resonant maxima on the curve for the dc component of the Josephson tunnel current, using a theory based on allowance for the electromagnetic field produced by the Josephson current itself, and the conditions under which the tunnel junction is connected in the external electric circuit. It is shown that the results of the theory can be used to explain the experimental data obtained by I. K. Yanson et al. (ZhETF v. 48, 976, 1965) when the nonlinear equation for the current is solved approximately for several limiting cases. The authors thank I. K. Yanson for useful discussions. Orig.

Card 1/2

L 08173-67

ACC NR: AP6024880 O

art. has: 37 formulas.

SUB CODE: 20/ SUBM DATE: 06Jan66/ ORIG REF: 004/ OTH REF: 007

Card 2/2 nst

IVANCHENKO, Yu.N.

Causes of the drying of oak plantations in the Lipetsk forest tract of the Savala forestry district. Trudy VIZR no.8:221-225 '57. (MIRA 12:8)

(Lipetsk region--Fungi, Phytopathogenic)
(Oak--Diseases and pests)

L 9634-66 EWP(e)/EWT(m)/EWP(t)/EWP(b) LJE(c) JD

ACC NR: AP5027712 SOURCE CODE: UR/0129/65/000/011/0040/0041

AUTHOR: Galushko, V. P.; Kasal'skiy, V. L.; Varenko, Ye. S.; Ivanchenko-Lirskiy, Yu. M. 44,55

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet) 44,55

TITLE: Effect of the composition of electrolytic bath on the temperature of the electrochemical boronizing of steel 44,55,1

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 40-41

TOPIC TAGS: boronizing, electrolyte, sodium carbonate, viscosimeter 27

ABSTRACT: This investigation deals with the viscosity of fused electrolyte as a function of the concentration of added Na_2CO_3 at 800, 850, and 900°C -- high temperatures at which Na_2CO_3 is thermally decomposed to form Na_2O and CO_2; hence the addition of Na_2CO_3 to the electrolyte does not alter the latter's composition; the only change occurs in the ratio between the oxides of sodium and boron and, in addition, the fusing point decreases markedly. Prior to the measurements the components were fused at 1000°C. Viscosity was measured with the aid of a container of KhN78T steel with graduated removable capillaries. The rated viscosity was determined according to the outflow of a specified volume of electrolyte. The setup for measuring viscosity is shown in Fig. 1. Crucible furnace 9 is heated to the necessary tempera-

Card 1/4 UDC: 621.785.53:621.317.729

L 9634-66
ACC NR: AP5027712

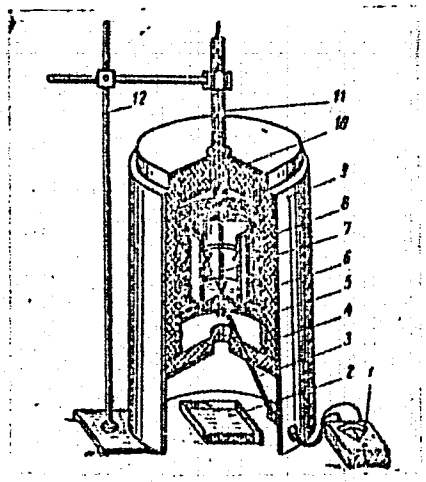


Fig. 1. Diagram of setup for determining the outflow time of electrolyte

1 - pyrometer; 2 - receiver for outflowing electrolyte; 3 - thermocouple; 4 - lining; 5 - spiral heater; 6 - graduated capillary; 7 - locking valve; 8 - metal container; 9 - furnace casing; 10- furnace lid; 11 - container holder; 12 - mount

Card 2/4

L 9631-66

ACC NR: AP5027712

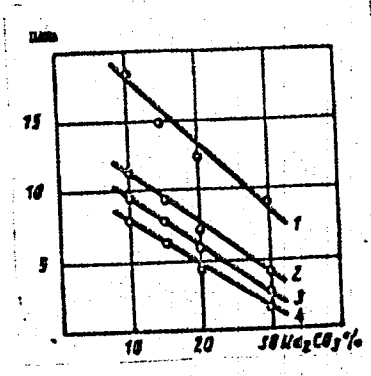


Fig. 2. Outflow time of electrolyte (in min) as a function of Na_2CO_3 content:

1 - 800°C; 2 - 850°C; 3 - 900°C; 4 - 960°C

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L 9634-66

ACC NR: AP5027712

ture, which is controlled by platinum-platinorhodium thermocouple 3 and pyrometer 1. Metal container 8 is filled with the test composition, with cone valve 7 in closed position, and maintained at the fixed temperature for 30 min. Thereupon, the outflow time of the electrolyte is measured with the aid of a stopwatch. The electrolyte flowing out of container enters receiver 2 and may be re-used for additional tests. Findings: an increase in the percentile content of Na_2CO_3 considerably reduces electrolyte viscosity. For example a 5% increase in Na_2CO_3 concentration reduces the outflow time of the electrolyte by 1.5 times at 800°C. The dependence of electrolyte viscosity on Na_2CO_3 content is illustrated by Fig. 2, which shows that as the Na_2CO_3 concentration is increased to 30% the viscosity of electrolyte markedly decreases. This makes it possible to reduce boronizing temperature to 800-820°C. Thus, a desirable composition of electrolyte for electrochemical boronizing would be: 30% borax, 40% boric oxide, and 30% Na_2CO_3. Orig. art. has: 3 figures.

SUB CODE: 07, 11, 13/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 000

Card 4/4

IVANCHEV, G.T.

Sanitary and economical significance of coloration of water at the dam Studena. Suvrem.med., Sofia 6 no.10:27-37 1955.
(WATER SUPPLY,
plankton, econ. & med. significance (Bul))

RASHEV, M., prof., asistent; TSONEV, K., d-r, asistent; MORDOKHAI, M., d-r, asistent; IVANCHEV, Ios., d-r, asistent.

Statistical considerations on cardiac defects. Izv. med. inst., Sofia Vol. 9-10:219-232 1954.

1. Vutreshna Klinika pri Meditsinskata Akademiia I.P.Pavlov, Plovdiv Zav. Katedrata: prof. d-r M.Rashev.
(HEART DISEASE, statistics, Bulgaria)

ERININ, Khr., dots., kand. na tekhn. nauki, inzh.; IVANCHEV, I., inzh.; POMAKOV, P., inzh.

Characteristics of the permanent magnets of the Fe-Ni-Al-Cu system obtained by the alloying and refining methods. Min delo 18 no. 11: 38-41 N '63.

1. Khimiko-tekhnicheski institut (for Ivanchev and Pomakov).

IVANCHEV, Iliia, inzh.; MINCHEV, Petur, inzh.

Some problems in applying the Bulgarian State Standard 1050-64: Traffic Loads for Computing Highway Bridges. Ratsionalizatsiia 14 no.9:30-35 '64.

1. Scientific Research Institute of Highways.

L 43001-66 T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6031797 SOURCE CODE: BU/0011/65/018/009/0801/0804

AUTHOR: Borisov, M.; Ivanchev, N.; Marinov, M.; Bonchev, L.

ORG: Physics Institute, BAN

TITLE: Positron annihilation in cadmium sulfide monocrystals

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 801-804

TOPIC TAGS: positron, particle annihilation, cadmium sulfide, gamma quantum, valence band, conduction band, crystallography

ABSTRACT: The measurements of the angular correlation between two annihilation gamma quanta during two-photon positron annihilation represents one of the simplest methods for the study of electronic structure of substances. The present article reports on such measurements during positron annihilation in cadmium sulfide monocrystals. The authors obtained different curves for low ohmic and high ohmic crystals and the difference is probably due to the fact that in high ohmic crystals positron annihilation proceeds with the electrons of the valence band of the crystal while in low ohmic crystals part of the positrons annihilate with the conduction band electrons. This paper was presented by Academician G. Nadzhakov on 27 May 1965. Orig. art. has: 2 figures. [JPRS: 34,525]

SUB CODE: 20 / SUBM DATE: 27May65 / ORIG REF: 001 / SOV REF: 001

Card 1/1 MLP

0919 0343

SOV/24-58-8-3/37

AUTHORS: Ivanov, L.I. and Ivanchev, N.P. (Moscow, Sofia)

TITLE: Determination of the Parameters of Iron and Chromium in Some Alloys (Opredeleniye parametrov diffuziy zheleza i khroma v nekotorykh ikh splavakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 8, pp 15 - 18 (USSR)

ABSTRACT: In this paper, results are described of determining the diffusion parameters of iron and chromium in a number of alloys located in the α-range, at temperatures which are higher than the temperature of dropping out of the σ-phase. For determining the diffusion coefficients, a combined method was used, described by Borovskiy et al. (Ref 7). The starting materials were electrolytic iron and an electrolytic chromium. The alloys were smelted in a high-frequency furnace in a helium atmosphere. From these alloys, cylindrical specimens were produced. A radioactive Cr^{51} and Fe^{59} were deposited onto the polished surface of the specimens by evaporation from tungsten evaporators inside a specially designed vacuum chamber. For the simultaneous detection of the γ-radiation from the Cr^{51} and Fe^{59}, a method of counting, based on the application of a scintillation spectrograph,

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Determination of the Parameters of Iron and Chromium in Some Alloys

was used which was described in an earlier paper of the authors. For improving the accuracy, specially prepared specimens of the iron were used, by means of which the coefficient of discrimination of the iron was checked for each measured value. The composition of the deposited, active layer corresponded with an accuracy of up to 5% with the composition of the investigated alloy; the thickness of the layer did not exceed 1 μ . Two series of tests were carried out. The first of these was of a preliminary nature and it was preceded by annealing of the specimens at 1 200 °C for two hours. The second series was effected on specimens of 22 mm dia., 4 mm height. Prior to deposition of the radioactive layer, the specimens were sealed into quartz ampules which had a vacuum of 10^{-3} mmHg and were annealed in these ampules for 100 hours at 1 200 °C. The composition of the alloys investigated during the second test series is entered in Table 1, p 16. In Table 2 are entered the determined values of the diffusion coefficients and of the activation energies of the iron in the alloys, the composition of which is given

Determination of the Parameters of Iron and Chromium in Some Alloys

in Table 1, and also the diffusion coefficient of chromium and the activation energy of the chromium in one of these alloys. The dependence of the diffusion of the iron and chromium on the inverse value of the temperature is graphed in Figures 1 and 2. In Figure 3, the dependence is graphed of the activation energy of iron on the composition of the alloy in accordance with the data of Shinyayev (Ref 6) as well as the data obtained by the authors of this paper. Exponential relations are included in the paper (p 17), which permit expressing the temperature dependence of the diffusion coefficients of iron and chromium. It can be seen that in alloys with high iron contents, there is good agreement between the values obtained by the authors of this paper and those of Shinyayev (Ref 6). However, for the alloy containing 82% Cr, the Q_{Fe} measured by the authors of this paper was considerably lower. In Figure 4, the values of K_{Fe} as a function of the composition are graphed. It can be seen from this graph that K_{Fe} remains almost unchanged in alloys which are rich in iron and increases strongly

Determination of the Parameters of Iron and Chromium in Some Alloys

on transition to chromium-base alloys reaching the value of 0.83 for an alloy containing 82% Cr.
There are 4 figures, 2 tables and 12 Soviet references.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy of the Ac.Sc.USSR) and Fizicheskiy institut Bolgarskoy Akademii Nauk (Physics Institute of the Bulgarian Academy of Sciences)

SUBMITTED: February 1, 1958

1. Iron--Diffusion 2. Chromium--Diffusion 3. Diffusion--Analysis
4. Alloys--Properties 5. Radioisotopes--Applications

IVANCHEV, S.

TECHNOLOGY

Periodical LEKA PROMISHLENOST. TEKSTIL. Vol. 7, no. 7, 1958.

IVANCHEV, S. The assortment as reflected in the fulfillment of the Plan. p. 4.
Sixty-five years of the Textile Technical School in the city of Sliven. p. 1.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

IVANCHEV, S. S. Cand Chem Sci -- "Effect of additions of lower aliphatic-acid salts upon the process of polymerization of styrene in emulsion." Odessa, 1961. (Min. of Higher and Secondary Specialized Education UkSSR. Odessa State Univ im I. I. Mechnikov). (KL, 4-61, 187)

IVANCHEV, S.S.; YURZHENKO, A.I; SOLOMKO, N.I.

Some features of the kinetics of styrene polymerization initiated by tertiary butyl peroxide and by tert-butylperbenzoate. Dokl. AN SSSR 140 no.5:1079-1082 O '61. (MIRA 15:2)

1. Odesskiy gosudarstvennyy universitet im. I.I.Mechnikova. Predstavleno akademikom B.A.Kazanskim.
(Styrene)
(Polymerization)

5.3830

29822
S/020/61/140/006/021/030
B103/B101

AUTHORS: Kurzhenko, A. I., Ivanchev, S. S., and Galibey, V. I.

TITLE: Thermostability and initiating activity of diacyl peroxides of paraffinic and phenylcarboxylic acids

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 6, 1961, 1348-1351

TEXT: The authors studied the dependence of the initiating activity of diacyl peroxides in homologous series: A) of paraffinic acids on the length of the organic radical, and B) of phenylcarboxylic acids on the number of methylene groups between the phenyl ring and the peroxide group on polymerization of 1) styrene and 2) methyl methacrylate. Therefore, peroxides of 14 acids (a) - n)) were synthesized according to the methods of Ref. 5 (see below) (see Table 1 and the legend below). The polymerization rate of 1) was studied (dilatometrically) in mass and in suspension, and that of 2) in mass. Table 1 shows the rate constants and activation energies of the decomposition of a) - n), which were determined based on

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Thermostability and initiating...

the rate of their thermal decomposition in ethyl benzene. Based on these data, it has been found that the thermostability of A is only slighthly changed by lengthening of their hydrocarbon radicals. The differences in thermostability are, however, remarkable in series B. d is the most stable, whereas the next member in the series, a, is the least stable and decomposes rather quickly at low temperatures. Further on in the series, the stability of the peroxides increases. Thus, c is closely related as to stability to the peroxides A, which corresponds to its structure. These data were compared with the kinetics of the polymerization initiated by a) - n). The rate of generation of free radicals is a function of the decomposition rate of the peroxides. Acceleration of the generation effects more rapid polymerization, whereby the molecular weights of the polymers decrease. Since the radicals are of analogous structure, their activity is, presumably, similar. To 1): The polymerization rate does not vary analogously to the thermostability of the peroxides. The A are much better initiators for styrene than d. Although a decomposes rapidly, it is but slightly active in the polymerization of styrene. A different mechanism is assumed for the thermal decomposition of a. While the $K \cdot 10^3$

Card 2/5

Thermostability and initiating...

remain practically the same for A, the polymerization initiated by A does not proceed with equal rates. The rates of polymerization and thermal decomposition of the peroxides do not vary consistently. For instance, the molecular weights of the polymers initiated by d are the lowest in spite of the slowest polymerization. The molecular weight of the polymers increases, when passing to b. The most rapid polymerization is effected by A, the molecular weights being equally the highest. These data do not agree with the equations: $V = \left[k_{incr}/k_{break}^{1/2}\right] \cdot k_{init}^{1/2}[M][I]^{1/2}$ (I); $\overline{P} = \left[k_{incr}/k_{break}^{1/2} \cdot k_{init}^{1/2}\right] \cdot [M]/[I]^{1/2}$ (II), where V is the polymerization rate, $[M]$ the monomer concentration, $[I]$ the concentration of the initiator, k_{break}, k_{incr}, k_{init} are the constants of the breaking, increase, and initiation reactions, and $\overline{P}$ is the average length of the polymer chains (on breaking by radical recombination). This discrepancy is explained by the change of the breaking of the polymer chains on polymerization, although the total character of the free radicals is the same. The change of the

Card 3/5

Thermostability and initiating...

concentration of the free radicals is determined in the stationary process as follows: $dR/dt = k_0[\Pi] - k_2[R_0]^2 - k_3\left[\Sigma M_n R\right] R_0 - k_4\left[M_n R\right]^2$, where R_0 are primary radicals, $M_n R$ polymer radicals, k_0, k_2, k_3, k_4 constants of the corresponding reactions. Thus, the breaking of the chains may occur on interaction between primary and polymer radicals (benzoyl peroxide) and between the polymer radicals themselves. This is the case for paraffin peroxides, where higher rates and molecular weights develop. To 2) Here, the kinetics agree completely with the two equations and vary consistently with the decomposition rate of the peroxides. There are 4 figures, 1 table, and 6 references: 1 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: Ref. 5: L. S. Silbert, D. Swern, J. Am. Chem. Soc., 81, 2364 (1959); D. F. De Tar, L. A. Carpino, J. Am. Chem. Soc. 77, 6370 (1955); W. Kern, K. Kossman, M. Rugenstein, Macromol. Chem., 15, 122 (1955).

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova (Odessa State University imeni I. I. Mechnikov)

29822
S/020/61/140/006/021/030
B103/B101

Thermostability and initiating...

PRESENTED: May 19, 1961, by B. A. Kazanskiy, Academician

SUBMITTED: May 10, 1961

Table 1: Rate constants and activation energies of the decomposition reaction of the peroxides.

Table 1

Перекись 3	K·10³ при 1		E, ккал/моль 2	Перекись 3	K·10³ при 1		E, ккал/моль 2
	73,5°	85,0° C			73,5°	85,0°C	
d ПБ	1,19	4,44	31,2	k ПЭК	4,6	17,7	30,7
a ПФУК	2,8 (0°C)	36,0(25°C)	22,0	ℓ ПКЛК	4,3	18,7	29,0
b ПГКК	5,0	20,3	30,1	i ППК	4,7	19,3	29,7
c ПФМК	3,0	14,8	31,0	j ПКНК	4,6	19,0	30,1
e ПМК	4,1	16,7	30,1	ℓ ПЛ	4,6	19,0	30,1
f ПВК	4,1	16,5	30,0	m ППмК	4,7	19,7	30,0
g ПКАК	4,1	17,4	30,7	n ПСК	4,6	18,9	29,9

Legend: (1) $K \cdot 10^3$ for; (2) E, kcal/mole; (3) peroxide; a) phenylacetic, b) hydrocinnamic, c) phenylbutyric, d) benzoic, e) butyric, f) valeric, g) caproic, h) enanthic, i) caprylic, j) pelargonic, k) capric, l) lauric, m) palimitic, and n) stearic acid peroxide.

Card 5/5

IVANCHEV, S.S.; YURZHENKO, A.I.; GALIBEY, V.I.

Evaluation of the initiating activity of peroxides in polymerization reactions. Dokl. AN SSSR 152 no.5:1159-1161 O '63. (MIRA 16:12)

1. Odesskiy gosudarstvennyy universitet im. I.I.Mechnikova. Predstavleno akademikom P.A.Rebinderom.

GALIBEY, V.I.; YURZHENKO, A.I.; IVANCHEV, S.S.

Polymerization of styrene initiated by peresters based on tert-butyl hydroperoxide and on some paraffinic and phenylcarboxylic acids. Ukr.khim.zhur. 29 no.12:1282-1289 '63. (MIRA 17:2)

1. Odesskiy gosudarstvennyy universitet im. I.Mechnikova.

IVANCHEV, S.S.; YURZHENKO, A.I.; SOLOMKO, N.I.

Polymerization of styrene in emulsion stabilized by a two-component emulsifier mixture. Koll. zhur. 26 no.6:670-674 N-D '64
(MIRA 18:1)

1. Odesskiy universitet.

IVANCHEV, S.S.; SOLOMKO, N.I.; YURZHENKO, A.I.

Diacyl peroxide-initiated emulsion polymerization of styrene.
Ukr. khim. zhur. 31 no.6:603-607 '65. (MIRA 18:7)

1. Odesskiy gosudarstvennyy universitet imeni Mechnikova.

[redacted], A.I.; ANISIMOV, Yu.N.

Spectral study of symmetrical diacyl peroxides. Zhur. fiz. khim. 39 no.8:1900-1905 Ag '65. (MIRA 18:9)

1. Odesskiy gosudarstvennyy universitet imeni Mechnikova.

GALIBEY, V.I.; IVANCHEV, S.S.; YURZHENKO, A.I.

Activity of free radicals formed in the decomposition of diacyl peroxides during styrene polymerization. Vysokom. soed. 7 no.10:1746-1752 O '65.

(MIRA 18:11)

1. Odesskiy gosudarstvennyy universitet.

ANISIMOV, Yu.N.; IVANCHEV, S.S.; YURZHENKO, A.I.

Quantitative determination of diacyl peroxides by infrared spectroscopy. Zhur. anal. khim. 21 no. 1:113-118 '66
(MIRA 19:1)

1. Odesskiy gosudarstvennyy universitet imeni Mechnikova.

ACC NR: AP6019655 (N) SOURCE CODE: UR/0368/66/004/006/0541/0545

41
B

AUTHOR: Ivanchev, S. S.; Guk, A. F.; Shlyapintokh, V. Ya.

ORG: none

TITLE: Use of chemiluminescence methods to study initiators of radical polymerization

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 6, 1966, 541-545

TOPIC TAGS: polymerization initiator, polymerization kinetics, chemiluminescence, peroxide

ABSTRACT: To elicit the effect of the structure of organic peroxides on their initiating capacity in polymerization processes, the authors obtain the kinetic characteristics of the reaction of the decay of diacylic peroxide of paraffinic acids. To perform this work a homologous series of peroxides was synthesized from the peroxide of butyric acid to the peroxide of stearic acid. Chemiluminescence methods were used to obtain the kinetic characteristics of the initiators. The investigated peroxide compounds were used as initiators of the chemiluminescence reaction of the oxidation of ethylbenzene. The intensity of the luminescence was measured by a highly sensitive photometric device with a photomultiplier as the light receiver. The photocurrent was amplified by an electrometer amplifier and recorded by a self-balancing potentiometer. During the experiment oxygen was bubbled through the initiator

Card 1/2 UDC: 535.379

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ACC NR: AP6019655

solution in the ethylbenzene being oxidized. The decomposition kinetics were measured at low starting concentrations of the peroxides, from $1 \cdot 10^{-2}$ to $1 \cdot 10^{-4}$ mole/liter in order to avoid induced decomposition. The purity of the investigated peroxides was at least 97%. It was found that the constants of the rate of thermal decomposition of peroxides in the investigated homologous series changed little. The constant of the rate of decomposition on transition from lower representatives of the homologous series to higher ones increased somewhat at first, passed through a maximum (peroxide of enanthic acid), and then dropped, approaching a constant value regardless of the chain length of the peroxide organic radical. The activation energy was practically independent of the length of the hydrocarbon radical in the peroxide molecule. The investigation revealed that chemiluminescence methods are rapid methods for investigating initiators. Their use markedly reduces labor and time expenditures, since, to determine the constants of decomposition it suffices to prepare only solutions of the initiator and the kinetics are automatically recorded. The value of the activation energy is determined from one experiment from one solution and the effectiveness of initiation also from one experiment. Owing to the high sensitivity of the method it is possible to work with very small initial concentrations of peroxides at which no reaction of their chain, induced decomposition occurs. The chemiluminescence method is recommended as a rapid and convenient method for measuring the kinetics of the decomposition of initiators of polymerization. Orig. art. has: 1 table, 4 figures, and 6 formulas.

SUB CODE: 07/ SUBM DATE: 15Oct64/ ORIG REF: 006/ OTH REF: 003
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(5)

BULGARIA

GEORGIEV, Iv., KIRYAKOV, Kr., KOSTOV, N., MOLKHOV, Zh., PETROV, P., IVANCHEV, V., POPOV, St., and VASILEV, Khr.

"Occupational Diseases of the Nervous System and Neurological Medical Aid at Enterprises"

Sofia, Nevrologiya, Psikhiatriya i Nevrokhirurgiya, Vol 5, No 1, 1966, pp 1-11

Abstract: It is brought out that the frequency and gravity of occupational diseases of the peripheral and central nervous system and of psychoneuroses with an occupational background increased in Bulgaria during 1953-1962. This is explained by the accelerated rate of economic development. Statistics of relative severity and of the average number of days lost according to occupations are presented. Conditions arising as a result of exposure to noise and vibrations are discussed. With respect to neurointoxications, the increase of their incidence among agricultural workers, particularly in connection with the use of organophosphorus compounds, is pointed out. The danger presented by radiation sickness to radiologists, engineers using X-rays in work on metals, persons occupied at the nuclear center, etc., is mentioned. Organization of a more effective neurological medical service at industrial enterprises is proposed. Graphs, 58 references (all Bulgarian). Manuscript received Sep 65.

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L 04211-67 EWT(1)/T/EWP(k)
ACC NR: AR6015876 (N) SOURCE CODE: UR/0275/65/000/012/V008/V009

AUTHOR: Ivanchev, V. K.; Stamov-Vitkovskiy, A. V. 53

TITLE: Investigation of an ultrasonic field in a fluid B

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 12V55

REF SOURCE: Tr. N.-i. tekhnol. in-t, vyp. 8, ch. 1, 1964, 158-161

TOPIC TAGS: ultrasonic field, sound propagation, sound wave, fluid property

ABSTRACT: Measurements of sonic pressures at a definite field point were conducted by means of a wave guide piezoelectric probe, a 2111 spectrometer, and a 2305 automatic recorder made by the firm of Brewel and Kerr, in a bath with a transformer of type PMS-67. The spectrometer made it possible to conduct the measurements with 1/3 octave filters in a frequency range of 31 cps to 31.5 kc, and without filters in a frequency range of 2 cps to 150 kc. It was demonstrated that as the excitation intensity changes, both the level of sound pressure and its frequency spectrum change, which testifies to the different contribution of the cavitation and primary ultrasonic (US) field components to the general level of sound pressure. Since a separate estimate of the primary and secondary fields was impossible, the use of a different type of probe does not give the necessary characteristics of the US field. For estimating the field in

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a liquid, the "foil" (distribution of prints of cavitation impacts on a thin aluminum foil makes it possible to judge the configuration of the cavitation field, and their quantity to judge the intensity) method is recommended, and also the "erosion" method (a grease-free specimen of Wood alloy is suspended before and after treatment by US; the difference in weight because of cavitation erosion serves as a measure of field intensity). [Translation of abstract] 3 illustrations and bibliography of 1 title. O. K.

SUB CODE: 20

Card 2/2 pla

IVANCHEVA, A. G.

"Oxidation of crystalline modifications of lead oxide. V. Lead oxides." by A. V. Pamfilov, E. G. Ivancheva and A. G. Ivancheva. (p. 330)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 3

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S/020/61/140/005/014/022
B103/B110

AUTHORS: Ivanchev, S. S., Yurzhenko, A. I., and Solomko, N. I.

TITLE: Characteristics of the kinetics of styrene polymerization initiated by tert-butyl peroxide and tert-butyl perbenzoate

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 5, 1961, 1079-1082

TEXT: The rate of styrene polymerization was studied at concentrations between 0.01 and 0.12 g-mol/l of the monomer, and at various concentrations of tert-butyl peroxide (BPO) or tert-butyl perbenzoate (BPB) at temperatures between 85 and 115°C. For comparison, the styrene polymerization was studied in the presence of benzoyl peroxide (BP). Polymerization took place in the bulk of the monomer, and also in an emulsion stabilized with a 0.2% Solvar solution. The kinetic conditions in these two cases were identical. The dependence of polymerization degree on time was found to be linear only with a low degree of polymerization of BPO and BPB (up to 20 - 30%). With a high degree of conversion, however, self-acceleration of the process sets in. At a polymerization temperature of 85°C, the rate constant of the thermal decomposition of BP dissolved in ethyl benzene, is $4.4 \cdot 10^{-5}$; for BPB:

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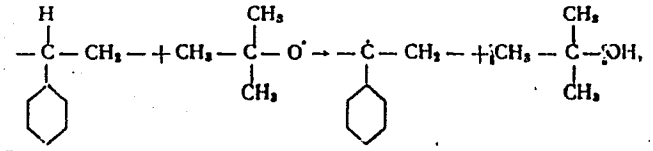
$6.1 \cdot 10^{-4}$. Under these conditions BPO is decomposed extremely slowly. The dependence of the intrinsic viscosity $[\eta]$ of the polymers on concentration and nature of the initiators, decreases, as expected, in the sequence BP - BPB - BPO. With BP and BPB, the molecular weights of the polymers decrease, as the concentration of the initiator increases. In the case of BPO, the molecular weight does not depend on the concentration. The $[\eta]$ of the polymers slightly increases with BPO concentrations between 0.01 and 0.10 mole/l of the monomer. This contradicts the rule saying that the molecular weight of the polymer decreases due to an increase in the initiator concentration. In polymerization initiated by BPO, $[\eta]$ of the polymers decreases by 50% due to a temperature rise from 85 to 105°C during the process. The polymerization rate, however, increases by one order of magnitude. With a BP conversion of up to 50%, $[\eta]$ is increased but slightly. Above this degree of polymerization, $[\eta]$ remains constant. With BPB and especially with BPO, $[\eta]$ increased even at high degrees of conversion. If the polymerization temperature was maintained for some time after the process, $[\eta]$ still increased considerably, even though the monomer was used up. This did not occur with BP. Such results are related to the high activity of the radicals

Characteristics of the kinetics...

$CH_3-\overset{CH_3}{\underset{CH_3}{C}}-O^{\cdot}$ forming during BPO and BPB decomposition. They interact with the tertiary C atoms of the polymer chain:



Thus, free polymer radicals are formed which continue growing in the presence of the monomer. If the monomer is absent, the free radicals combine and yield a polymer of higher molecular weight. Unless the temperature is extremely high, the initiator amount required will still be present after the polymerization is finished due to the high thermal stability of peroxides. At high temperatures, the initiator may be used up

at the end of the process. In this case, heating does not affect the molecular weight, and $[\eta]$ in this process will be changed but slightly. The high "initiating" activity of BPO and BPB is due to a kind of graft homopolymerization. There are 3 figures, 1 table, and 5 references: 2 Soviet and 3 non-Soviet. The four most important references to English-language publications read as follows: W. P. Hohenstein, H. Mark, Polymer Sci., 1, 127 (1946); E. Tromsdorf, E. E. Schildknecht, High Polymer, 10, 69 (1956); R. P. Perry, K. P. Seltzer, Modern Plastics, 25, No. 3, 216 (1947); J. H. Reley, F. F. Rust, W. E. Vaughan, J. Am. Chem. Soc., 70, 88 (1948); N. A. Milas, D. M. Surgenor, ibid., 68, 205, 643 (1946).

ASSOCIATION: Odesskiy gosudarstvennyy universitet im. I. I. Mechnikova (Odessa State University imeni I. I. Mechnikov)

PRESENTED: May 19, 1961, by B. A. Kazanskiy, Academician

SUBMITTED: May 11, 1961

IVANCHEVA, E.

KOEN, M.; PODVURZACHOVA, A.; IVANCHEVA, E.

Clinical aspects and therapy of whooping cough. Suvrem. med., Sofia 7 no.11:66-73 1956.

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(WHOOPING COUGH,
clin. aspects & ther. (Bul))

BOIADZHIEV, S., inzh., st. prepodavatel; IVANCHEVA, Ts.V., inzh., red. asistent.

Statistical analysis of the elements of machine-construction drawings. Ratsionalizatsiia 13 no.8: 28-31 '63.

1. Mashino-elektrotekhnicheski institut (for Boiadzhiev),
2. Khimiko-tekhnicheski institut (for Ivancheva).